

RECEIVED  
CENTRAL FAX CENTER

JUL 28 2008

**FAX TRANSMISSION****DATE:** July 28, 2008**PTO IDENTIFIER:** Application Number 10/694,530-Conf. #1899

Patent Number

**Inventor:** Holger Richert**MESSAGE TO:** US Patent and Trademark Office**FAX NUMBER:** (571) 273-8300**FROM:** FULBRIGHT & JAWORSKI L.L.P.

James R. Crawford

**PHONE:** (212) 318-3148**Attorney Dkt. #:** NY-SANZ 251-US (10313696)**PAGES (Including Cover Sheet):** 25**CONTENTS:** Appeal Brief  
Charge fees to credit Card. Form PTO 2038/  
Certificate of Transmission (1 page)

If your receipt of this transmission is in error, please notify this firm immediately by collect call to sender at (212) 318-3148 and send the original transmission to us by return mail at the address below.

This transmission is intended for the sole use of the individual and entity to whom it is addressed, and may contain information that is privileged, confidential and exempt from disclosure under applicable law. You are hereby notified that any dissemination, distribution or duplication of this transmission by someone other than the intended addressee or its designated agent is strictly prohibited.

**FULBRIGHT & JAWORSKI L.L.P.**  
666 Fifth Avenue, New York, New York 10103  
**Telephone:** (212) 318-3000 **Facsimile:** (212) 318-3400

RECEIVED  
CENTRAL FAX CENTER

JUL 28 2008

Docket No.: SANZ 251 (PATENT)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re

Application of: Richert, et al.

Confirmation No: 1899

Serial No.: 10/694,530

Group Art Unit: 2836

Filed: October 27, 2003

Examiner: S. A. Bauer

For: CONFIGURATION FOR N CONSUMERS  
OF ELECTRIC ENERGY, OF WHICH M  
CONSUMERS ARE SIMULTANEOUSLY  
SUPPLIED WITH ENERGY

July 28, 2008

This correspondence is being filed VIA FACSIMILE to facsimile no. (571) 273-8300  
addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA. 22313-1450 on the  
date shown below:

Fani Malikouzakis

7/28/08  
Date: July 28, 2008APPEAL BRIEFMS Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

As required under 37 C.F.R. § 41.37(a), this brief is filed within two months of the  
Notice of Appeal filed in this application, and is in furtherance of said Notice of Appeal.

Please charge the required fees under 37 C.F.R. § 41.20(b)(2) to a credit card. A copy of  
form PTO-2038 is attached. Please charge any additional fees due to deposit account no. 50-0624.

This brief contains items under the following headings as required by 37 C.F.R. § 41.37  
and M.P.E.P. § 1206:

55240467.1

07/29/2008 HMARZ11 00000029 10694530

01 FC:1402

510.00 0P

1

**Serial No. 10/694,530****Docket No.: SANZ-251**

- I. Real Party In Interest
- II. Related Appeals and Interferences
- III. Status of Claims
- IV. Status of Amendments
- V. Summary of Claimed Subject Matter
- VI. Grounds of Rejection to be Reviewed on Appeal
- VII. Argument
- VIII. Claims Appendix
- IX. Evidence Appendix
- X. Related Proceedings Appendix

Serial No. 10/694,530

Docket No.: SANZ-251

I. REAL PARTY IN INTEREST

The real party in interest for this appeal is the assignee, Applied Materials GmbH & Co.  
KG.

**Serial No. 10/694,530****Docket No.: SANZ-251****II. RELATED APPEALS, INTERFERENCES, AND JUDICIAL PROCEEDINGS**

There are no other appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

Serial No. 10/694,530

Docket No.: SANZ-251

## III. STATUS OF CLAIMS

## A. Total Number of Claims in Application

There are 12 claims pending in this application.

## B. Current Status of Claims

Claims canceled: 1-20

Claims pending: 21-32

Claims allowed: None

Claims rejected: 21-32

## C. Claims On Appeal

The claims on appeal are all finally rejected claims, i.e., claims 21-32.

Serial No. 10/694,530

Docket No.: SANZ-251

IV. STATUS OF AMENDMENTS

All amendments have been entered.

Serial No. 10/694,530

Docket No.: SANZ-251

## V. SUMMARY OF CLAIMED SUBJECT MATTER

The present invention relates to a configuration which provides a number of consumers (n) of electric energy, of which a certain number (m) are simultaneously provided with energy, wherein at any time  $m \leq n$  (See original claim 1, paragraph [0007] and Fig. 1). Referring to Fig. 1, this configuration includes a modular energy supply (100) having k energy modules (16-33). A control is provided which connects as many energy modules to a respective one of the m consumers as required to provide the necessary electric energy required by that consumer. The sum of the power supplyable by the k energy modules is smaller than the power which would be necessary if all n consumers simultaneously required electric power.



~~Serial No. 10/694,530~~~~Docket No.: SANZ-251~~**VI. GROUND(S) OF REJECTION TO BE REVIEWED ON APPEAL**

1. Did the Examiner err by finally rejecting claims 21, 23 and 32 under 35 U.S.C. §102(e) over U.S. Patent No. 6,297,610 ("Bauer")?
2. Did the Examiner err by finally rejecting claims 22, 23, 25 and 31 under 35 U.S.C. §103(a) over Bauer in view of U.S. Patent No. 5,584,974 ("Sellers")?
3. Did the Examiner err by finally rejecting claim 24 under 35 U.S.C. §103(a) over Bauer in view of U.S. Patent No. 5,444,333 ("Lau")?
4. Did the Examiner err by rejecting claims 26-28 over Bauer in view of U.S. Patent No. 5,429,705 ("Mahler")?
5. Did the Examiner err by finally rejecting claims 29 and 30 under 35 U.S.C. §103(a) over Bauer in view of U.S. Patent No. 6,420,863 ("Milde")?

Applicants submit that the Examiner erred by issuing each of these rejections.

Serial No. 10/694,530

Docket No.: SANZ-251

## VII. ARGUMENT

The claims do not stand or fall together for reasons set forth herein.

**A. Rejection of Claims 21, 23 and 32 under 35 U.S.C. §102(e) over Bauer**

Importantly, Bauer fails to disclose that  $m$  consumer out of  $n$  consumers are supplied simultaneously with energy, or that  $m$  is less than  $n$ .

It is alleged by the Examiner that Fig. 3 of Bauer discloses a configuration for  $n$  consumers 6 of electric energy. Fig. 3 illustrates diagrammatically part of a network 4 and in parallel a switch matrix 28 which is an example of a single matrix configuration (col. 5, lines 7-9). Consumers 6 are apparently the motors being illustrated on the right column of Fig. 3. Each motor of Bauer is connected to variable speed drivers (VSD) 10 which in turn are connected to axis controller 8. However, as set forth above, nowhere does Bauer disclose that  $m$  consumers out of  $n$  consumers are supplied simultaneously with energy. Thus, Appellants submit that the Examiner has failed to establish a *prima facie* case of anticipation and every feature of the claims are not disclosed by Bauer.

As can be understood from col. 1, there is a VSD for each motor (col. 1, line 32). A VSD is not a source of electrical energy. Instead, the power or energy of any VSD is variable, but electrical energy is not sourced from the VSDs.

The relationship  $m < n$  is nowhere disclosed in any of the cited references, and the Examiner has not specifically shown where this feature is described, in Bauer or elsewhere.

Bauer also fails to disclose that the sum of the power supplyable by the  $k$  energy modules is smaller than the power which would be necessary if all consumers simultaneously required electric power. The Examiner has not cited to any particular disclosure in Bauer to support his allegations to the contrary regarding this point. The motors of Bauer are, of course, consumers, and

Serial No. 10/694,530

Docket No.: SANZ-251

these consumers are the only feature which Bauer and the presently claimed invention arguably have in common.

According to the Examiner, the features "wherein a control is provided which connects as many energy modules to respective one of the M consumers is disclosed by Bauer, col. 1, lines 31-49. However, the contrary is true. Lines 33-34 of Bauer disclose:

"... so that all of the motors (consumers) can be simultaneously operated ..." (emphasis added)

Appellants assert that one feature of the claimed invention is that not all of the consumers are supplied with electrical energy simultaneously.

Clearly, Bauer does not disclose each and every feature of the claimed invention, so the Examiner should be reversed as to this rejection, as should all other rejections since they, too, are based on Bauer.

To reiterate and clarify certain distinctions between Bauer and claim 21, some of which have already been described above, the features of claim 21 are set forth as follows:

- a) A configuration for n consumers of electric energy,
- b) of which m consumers are supplied simultaneously with energy,
- c) wherein at any time  $m < n$ ,
- d) and whereby a modular energy supply comprising k energy modules is provided,
- e) and whereby the sum of the power supplyable by the k energy modules is smaller than the power which would be necessary, if all n consumers simultaneously required electrical power,

Serial No. 10/694,530

Docket No.: SANZ-251

f) wherein a control is provided which connects as many energy modules to receptive one of the  $m$  consumers so that this consumer receives the power required by said consumer.

The Examiner does not specifically show where Bauer discloses features a) through f) as set forth above are disclosed. Fig. 3 of Bauer shows a motor-drive patch matrix. It illustrates diagrammatically part of the network 4 and in particular the switch matrix 28 which is an example of a single matrix configuration. In this arrangement, there are twelve axis controllers 8 each coupled to a respective VSD 10 (VSD = variable speed drive, col. 1, lines 14/15). The VSD controls thirty-two winch motors 6 which can be connected together by buses which form part of the matrix 28. Each of the controllers 8 is coupled to a winch control patch bus 24 represented by columns in the matrix, and each of the motors is connected to a motor bus 26 represented by rows in the matrix.

Since winch motors 6 are consumers, the twelve motors are " $n$  consumers". Nowhere, however, is disclosed that  $m$  out of these  $n$  consumers are supplied simultaneously with energy. Bauer merely discloses that the number of motors may be reduced. Thus, feature b) of claim 21 is not disclosed by Bauer. Bauer does not disclose that  $m < n$ , whereby both  $m$  and  $n$  refer to consumers, i.e., feature c). Appellants refer to this feature below.

The VSDs of Bauer may be called "energy modules" which, for discussion, will be considered to correlate with feature d) of claim 21. However, buses 26 and 24 are primarily information buses, and only secondary energy buses. Power buses 38 are shown in Fig. 4B. In any event, Bauer does not speak of a sum of the power supplied to the consumers; Bauer discloses that each consumer is connected to one "module" only.

As a result, features b), c), e) and f) are not disclosed by Bauer.

Column 1, lines 31-49, to which the Examiner also refers, has nothing to do with the present invention. No modular energy suppliers are disclosed as such, although the VSDs have, in some respect, the function of energy suppliers.

Serial No. 10/694,530

Docket No.: SANZ-251

The only feature of Bauer which appears to be remotely similar to feature c) is disclosed in col. 1, lines 42-49 of Bauer:

"Economies can be realized if the number of motors required to run simultaneously is lower or substantially lower than the total numbers of motors and this is frequently the case. In this case, the number of VSDs can be reduced to the motors required to run at the same time.

According to the present invention, however, the number k of energy modules has nothing to do with the number m.

According to the presently claimed invention the powers of modular energy supplies are added with respect to one consumers ("...the sum of the power..., feature e)). According to Bauer the powers of the VSDs are not added. The control and/or power signals have an influence on acceleration, maximum speed, duration of maximum speed, rate of deceleration and precise end-point positioning (col. 1, lines 21-25). When a particular motor needs to be operated, it can be coupled through its motor bus 26 and switches 30 to one of two VSDs (col. 5, lines 37-39). If one of those VSDs is available, the appropriate coupling is made so that the motor can be operated as required. In other words, one motor is not coupled to two or more VSDs, but to one VSD only.

From Fig. 4 can be seen that a selected connection between one of the VSDs 10 and its associated axis controller 8 to the motor 6 through the patch switches 32 and 34 is established (col. 5, lines 56-65). It simply would not make sense to couple one motor 6 to a plurality of VSDs, so one of skill in the art would find no motivation to do so at the time of the present invention.

As is pointed out on col. 11, lines 35-57, one motor, one bus and one drive are allocated. The matrix should enable any combination of motors to be connected to a drive each (col. 1, lines 63-67).

The elements are operable to determine which devices are coupled to respective drives without direct coupling between the central controller and the logic elements.

Serial No. 10/694,530

Docket No.: SANZ-251

To anticipate a claim, a single prior art reference must expressly or inherently disclose each claim limitation. Celeritas Techs., Ltd. v. Rockwell Int'l Corp., 150 F.3d 1354, 1361 (Fed. Cir. 1998). But disclosure of each element is not quite enough; it has long held that "[anticipation requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim." Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 1548 (Fed. Cir. 1983) (citing Soundsciber Corp. v. United States, 175 Ct.Cl. 644, 360 F.2d 954, 960 (1966)). Since Bauer fails to disclose each of the claim elements of claim 21 as set forth above, it is respectfully submitted that the rejection issued in error and that the Examiner should be reversed, as each and every feature of the rejected claims is not disclosed by Bauer.

**B. Rejection of claims 22, 23, 25 and 31 under 35 U.S.C. § 103 over Bauer and Bauer and Sellers**

The deficiencies of Bauer are discussed above, and are applicable here. Although the Examiner is correct that Bauer does not disclose that the consumers are sputter installations, with each cathode of a sputter installation having its own arc management, Sellers does not teach this feature, either. More specifically, at col. 4, lines 25-28 Sellers disclose, that:

"It is an object of this invention to enhance sputtering or other plasma chamber operations in a fashion which detects and deals with arcing or overvoltage condition, and which avoids the problems of the prior art."

There is no teaching by Sellers that each cathode of a sputter installation has its own arc management.

For the sake of argument, even if Bauer and Sellers did disclose the features which the Examiner mentions, the skilled artisan would not arrive at a combination of Bauer and Sellers because it is not possible to combine the references as alleged by the Examiner.

Bauer concerns the control of stage equipment in a theater, whereas Sellers relates to an arc control in a sputtering power supply. Bauer concerns International classes G05B 11/32, H02J 1/00 and H05B 37/02, whereas Sellers concerns International class C23C 14/54, a completely different class. Also, the respective U.S. classes are completely different. There is no motivation

Serial No. 10/694,530

Docket No.: SANZ-251

for one of skill in the art to make the proposed combination. Thus, the Examiner's combination is clearly based on impermissible hindsight, as these are non analogous arts, as there is no motivation in the art to make Examiner's proposed combination. In keeping with the flexible nature of the obviousness inquiry, KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1739 (2007), the requisite motivation can come from any number of sources and need not necessarily be explicit in the art. See Aventis Pharma Deutschland GmbH v. Lupin, Ltd., 499 F.3d 1293, 1301 (Fed. Cir. 2007). Nonetheless, the Examiner has not met this burden because there must be at least some reasonable motivation to make the alleged combination, and the Examiner has provided none.

With respect to claim 23, the Examiner again combines Bauer and Sellers. However, as mentioned above, such a combination is impossible. While, Appellants agree that Sellers discloses a DC power supply 10 (Fig. 1), this power supply has nothing to do with Bauer. Bauer has no power supply at all, but only variable speed drives, but it is not disclosed whether these speed drives are DC or AC speed drives. The Examiner states that "Sellers teaches a device powered by electric energy realized by DC current." The Examiner, however, fails to explain where this feature is disclosed by Sellers.

Claim 25 recites the feature "... wherein the electric energy is realized by pulsed DC current" is recited. Bauer does not disclose this feature.

According to the Examiner, Sellers teaches in Fig. 1 that a DC power supply can be converted to a pulse DC current. Indeed, Fig. 1 of Sellers shows a reversing pulse generator 18. However, a pulse generator according to Sellers cannot be incorporated into Bauer. If Bauer was provided with pulsed current, it would not work and there is no motivation to provide pulsed current sources instead of variable speed drives, indeed the Examiner fails to provide any reasonable motivation why one would do so. Motors 6 of Bauer are not taught to be step motors.

Claim 31 refers to the configuration as claimed in claim 22, wherein the pulse generator is assigned to each cathode. Sellers does not teach to assign a power supply to each of the cathodes. Accordingly, this is no pulsed DC power supply assignment to each cathode.

Serial No. 10/694,530

Docket No.: SANZ-251

**C. Rejections of claim 24 under 35 U.S.C. §103(a) over Bauer and Lau**

Claim 24 recites that the electrical energy is realized by AC current. The Examiner alleges that Bauer and Lau, in combination, would result in the combination of claims 21 and 24. However, Bauer has nothing to do with the power supply of this claim, nor has Lau. Thus, the combination of the two references does not lead to the subject-matter of the combination of claims 21 and 24, so this rejection must be reversed.

**D. Rejection of claims 26 to 28 under 35 U.S.C. §103(a) over Bauer and Mahler**

Claim 26 recites that "... each cathode is provided with its own adaptation network." This feature is not disclosed by Mahler so that the Examiner's suggested combination of Bauer and Mahler could never lead to the subject of the combination of claim 26. The same applies to claims 27 and 28. Thus, this rejection must be reversed.

**E. Rejection of claims 29 and 30 under 35 U.S.C. §103(a) over Bauer and Milde**

Claim 29 recites that "... the consumers are sputter installations with each installation including two cathodes to which one pole reversal unit is assigned."

Milde discloses a sputter installation, seen in Figs. 1A and 1B of Milde which shows two targets 1 and 2 which are connected to a switching unit 4. However, it is impossible to combine Milde and Bauer, as would be clear to anyone skilled in the art, if they tried to add the drawings of Milde's Fig. 1A or Fig. 1B into Fig. 3 of Bauer. There is no possible way to make the alleged combination. The Examiner was requested to provide a proposed drawing showing the combination, but has not done so, because the Examiner's proposed combination cannot in fact be made. Thus, this rejection is based on an allegation unsupported by any evidence or motivation, and should be reversed.

Claim 30 recites the feature:



Serial No: 10/694,530

Docket No.: SANZ-251

“... wherein the consumers are sputter installations with each installation including two cathodes, of which the one cathode is connected to a pole of an AC voltage and the other cathode to the other pole of this AC voltage.”

The Examiner alleges that Milde shows in Fig. 1A two cathodes, of which one cathode is connected to a pole of an AC voltage and the other cathode to the other pole of the AC voltage. However, switching element 4 of Fig. 1A is not an AC voltage source. An AC voltage source is shown at the right side of supply unit 5 of Milde. Clearly, this rejection was based on hindsight and must be reversed.

With respect to all rejections, please note that Bauer and the present invention have completely different goals. Those skilled in the art relating to Bauer, are completely different from those skilled in the art relating to the present invention.

The problem to be solved by the present invention to address the problem of making available only as much electric power as is actually required. Bauer has nothing at all to do with overcoming the above problem. Instead, Bauer discloses that (col. 2, lines 21-23):

“An object of the present invention is to provide a novel control system which is particularly applicable to an automatic motor-drive patch system.”

There is no suggestion in Bauer to save electric power. Accordingly, a person skilled in the art who wishes to solve the problem on which the present invention is based, would never have looked to the problems which occur with “a scenery flying system implemented at The Olivier Theater, London” (col. 2, lines 16/17) or read a paper entitled “The National Theater’s Scenery Hoist Matrix Scheme”.

In view of the foregoing, reversal of the Examiner’s final rejections in all respects is respectfully requested.

**Serial No. 10/694,530**

**Docket No.: SANZ-251**

**VIII. CLAIMS APPENDIX**

A copy of the claims involved in the present appeal is attached hereto as Appendix A.

Serial No. 10/694,530

Docket No.: SANZ-251

**IX. EVIDENCE APPENDIX**

No evidence pursuant to §§ 1.130, 1.131, or 1.132 is being submitted.

Serial No. 10/694,530

Docket No.: SANZ-251 RECEIVED

CENTRAL FAX CENTER

JUL 28 2008

**X. RELATED PROCEEDINGS APPENDIX**

No related proceedings are referenced in II. above, hence copies of decisions in related proceedings are not provided (see Appendix C).

A favorable decision is earnestly solicited.

Dated: July 28, 2008

Respectfully submitted,

By

James R. Crawford

Registration No.: 39,155

FULBRIGHT &amp; JAWORSKI L.L.P.

666 Fifth Avenue

New York, New York 10103

(212) 318-3148

(212) 318-3400 (Fax)

Attorney for Applicant

Serial No. 10/694,530

Docket No.: SANZ-251

## APPENDIX A

Claims 1-20 (canceled)

21. A configuration for  $n$  consumers of electric energy, of which  $m$  consumers are supplied simultaneously with energy, wherein at any time  $m < n$ , and whereby a modular energy supply comprising  $k$  energy modules is provided, and whereby the sum of the power supplyable by the  $k$  energy modules is smaller than the power which would be necessary, if all  $n$  consumers simultaneously required electrical power, wherein a control is provided which connects as many energy modules to respective one of the  $m$  consumers so that this consumer receives the power required by said consumer.

22. The configuration as claimed in claim 21, wherein that the consumers are sputter installations, with each cathode of a sputter installation having its own arc management.

23. The configuration as claimed in claim 21, wherein the electric energy is realized by DC current.

24. The configuration as claimed in claim 21, wherein the electric energy is realized by AC current.

25. The configuration as claimed in claim 21, wherein the electric energy is realized by pulsed DC current.

26. The configuration as claimed in claim 22, wherein each cathode is provided with its own adaptation network.

27. The configuration as claimed in claim 23, wherein each cathode is provided with its own adaptation network.

28. The configuration as claimed in claim 24, wherein each cathode is provided with its own adaptation network.

**Serial No. 10/694,530****Docket No.: SANZ-251**

29. The configuration as claimed in claim 21, wherein the consumers are sputter installations with each installation including two cathodes to which one pole reversal unit is assigned.

30. The configuration as claimed in claim 21, wherein the consumers are sputter installations with each installation including two cathodes, of which the one cathode is connected to a pole of an AC voltage and the other cathode to the other pole of this AC voltage.

31. The configuration as claimed in claim 22, wherein a pulse generator is assigned to each cathode.

32. The configuration of claim 21, wherein each of the k energy modules have the same electrical power.

**Serial No. 10/694,530**

**Docket No.: SANZ-251**

**APPENDIX B**

None





**Serial No. 10/694,530**

**Docket No.: SANZ-251**

**APPENDIX C**

None